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MOLD RUNNER REMOVAL
FROM A SUBSTRATE-BASED PACKAGED ELECTRONIC DEVICE

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ABSTRACT

10 According to the invention, an electronic device
mounted on a substrate is encapsulated using a standard
two-piece mold. A novel degating region is formed on a
surface of the substrate to allow removal of excess
encapsulant formed on the surface during molding
15 without damaging the remainder of the device. The
material of the degating region that contacts the
encapsulant forms a weak bond with the encapsulant,
relative to the bond formed between the encapsulant and
the substrate, so that the encapsulant can be peeled
20 away from the degating region without damaging the
substrate or other portion of the device. The degating
region is provided without introducing additional steps
into the process for forming the device. The presence
of the degating region eliminates the necessity of
25 using a three-piece or modified two-piece mold to
achieve top gating in order to degate without damaging
the device. In one embodiment, the degating region is
made of gold. Gold has an adhesive force with typical
encapsulant materials that is approximately 10% of the
30 adhesive force between the typical encapsulant
materials and typical substrate materials.

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